

Columbia's Community Solar Program OVERVIEW FOR WATER AND LIGHT ADVISORY BOARD

Columbia's Community Solar program is similar to community solar programs offered across the country and is an easy way to advance our clean energy future. By joining Columbia's Community Solar program, customers will have a similar experience to having solar panels on their property with a net metering agreement, with the exception that Columbia Water & Light will purchase, install and maintain the photovoltaic system.

How it works Columbia Water & Light's solar projects are divided into one kilowatt blocks that are available to all electric customers. A city ordinance for the Columbia Community Solar program will provide the guidelines for customers to reserve the solar capacity. Customers will be charged the same monthly amount for each kilowatt block (see information on the next page for potential changes in the cost). Customers can decide what portion of their electric supply they want to come from the sun. The maximum number of solar blocks customers can reserve has to be similar to the amount of electricity they typically consume in a year.

Customers are charged for electricity in kilowatt hours. Each kilowatt block of solar energy will produce around 1,300 kilowatt hours each year. The amount of kilowatt hours produced by solar panels each month will vary. Generally, solar production is higher in the summer months.

Participation in the community solar program is similar to a net metering agreement for customers with their own photovoltaic system.

Customers interested in the Columbia Community Solar program will be encouraged to review their previous utility bills to find their monthly kilowatt hour consumption of electricity. This will give the customer an idea of how much electricity they use and how much it cost. The cost of the Columbia Community Solar blocks has not been determined at this time. Once the program is launched, the customer outreach materials will have a chart with sample calculations to help customers determine their participation level.

Deposits & Length of Agreement There is a \$25 initiation fee for each participating customer plus a \$25 deposit for each kilowatt block. If a customer decides to sign up for three kilowatt blocks, he/she would be charged \$25 plus \$75 for the blocks for a total of \$100. The initiation fee will not be refunded. Customers that will be living in Columbia for less than two years are discouraged from participating in this program.

Changes in Community Solar Rate The expenses and revenue of this program would be accounted for separately from the standard electric rates. The cost of the Columbia Community Solar program for each block of energy is determined by the capital costs of the equipment, site development, distribution, interconnection, operation, maintenance and administrative expenses. Capital costs are the larger part of the monthly fee and are fixed for the life of the project (at least 20 years). The operations and maintenance charge might change a small amount from year to year if these expenses are higher or lower than expected. Changes to the cost of participating in the Columbia Community Solar program will be considered each year during the city's budget cycle. The Water & Light Advisory Board will review any cost adjustments and the Columbia City Council would make the final decision after a public hearing.

Renewable Energy Credits A renewable energy credit, certificate or attribute is a tradable certificate, credit or attribute that is certified by an entity that is approved by the Missouri Public Service Commission. Columbia Water & Light retains the rights to the Renewable Energy Credits for the community solar program to meet Columbia's renewable energy mandate.

Research on Community Solar Models The Staff Recommendations and Implementation Plan for the 2013 Integrated Resource Plan included creating a community solar program as a priority. Staff members have consulted with other

utilities that offer a community solar program along with consulting research conducted by the Solar Electric Power Association, the American Public Power Association and other organizations. Due to the complicated nature of developing a community solar program, the National Renewable Energy Lab (NREL) agreed to review the program concepts and provided the report "Creating a Municipal Utility Community Solar Program: Opportunities and Challenges for Columbia Water & Light". The study included items the utility should consider when developing the structure of the program.

One of the items brought up in the NREL report was compliance with the Federal Securities law. A community solar program may require compliance with the Securities and Exchange Commission regulations if the business transaction qualifies as one that is regulated. This could be cumbersome for Columbia Water & Light and customers to comply with so NREL suggested that the program follow specific parameters to keep all transaction free from Securities and Exchange Commission regulatory definitions. To the extent possible, the contract, pricing, billing arrangements and related materials should resemble a customary consumer purchase of non-solar electricity. The program should not be marketed to emphasize that the amount of solar power sold to customers depends on the participation of other customers or the success of the utility in obtaining subscribing customers or in operating the project. The corollary is that customer dollars cannot be used up front to finance the project. NREL further suggests that any utility interested in developing a community solar program should consult with an attorney and financial experts before taking any action.

Columbia Water & Light staff has conducted some research in 2014 to understand whether the community was interested in a community solar program and how well they understood the concepts of the program. The annual Columbia Water & Light survey showed that almost four-in-ten residential customers are very interested in a community solar program; with 57% of those choosing either 4 or 5 to register their preference (1 indicates no interest and 5 being very interested). This survey question will need to be repeated again, with the cost of the program included, to gauge how much the program could be expanded.

Focus groups were held in April 2014 to solicit feedback and opinions regarding the community solar concept. This type of research helps staff members understand what parts of the program concept are favorable while also showing what parts of the program might confuse customers. The feedback is helpful in creating the program parameters and how to market the program.